

# INDEX.

## A.

- Abutilon crispum*, Don, 331.  
*holosericeum*, Scheele, 331.  
*hypoleucum*, Gray, 331.  
*Texense*, Torr. & Gray, 331.  
*Acacia amentacea*, DC., 351.  
*Berlandieri*, Benth., 351.  
*constricta*, Benth., 351.  
*crassifolia*, Gray, 351.  
*Farnesiana*, Willd., 351.  
*filicina*, Willd., 351.  
*flexicaulis*, Benth., 351.  
*Palmeri*, Watson, 350.  
*Wrightii*, Benth., 351.  
*Acer grandidentatum*, Nutt., 338.  
*Achyronychia Parryi*, Hemsl., 329.  
*Acid potassium salt*, 70, 73.  
*Acnida Floridana*, Watson, 376.  
*tuberculata*, Gray, 376.  
*Acrylic and propionic acids*, on the constitution of the substituted, 150.  
*Adolphia infesta*, Meisn., 336.  
*Air-thermometer*, a new form of, 22.  
*Alchemilla hirsuta*, HBK., 353.  
*sibbaldiaefolia*, HBK., 353.  
*tripartita*, 353.  
*velutina*, Watson, 354.  
*Allium Brandegei*, Watson, 380.  
*Parishii*, Watson, 380.  
*Amarantus venulosus*, Watson, 376.  
*Ammannia latifolia*, Linn., 355.  
*Ammonic phospho-molybdate*, 68.  
*Ammonium*, phospho-molybdate of, 77.  
*Ammonium salt*, 71, 76, 78.  
*Amoreuxia palmatifida*, DC., 324.  
*Schiedeana*, Planch., 324.  
*Wrightii*, Gray, 324.  
*Ampelopsis pubescens*, Schlecht., 337.  
*Anemone Mexicana*, HBK., 317.  
*Angelica arguta*, Nutt., 374.  
*genuflexa*, Nutt., 374.  
*Lyallii*, Watson, 374.  
*Mexicana*, Vatke, 361.  
*verticillata*, Hook., 374.  
*Anoda cristata*, Schlecht., 330.  
*hastata*, Cav., 330.  
*parviflora*, Cav., 330, 368.  
*reticulata*, Watson, 368.  
*Wrightii*, Gray, 368.  
*Antimonious bromide*, analysis of, 16.  
*Antimonious sulphide*, precipitation of, 2.  
*Antimony*, atomic weight of; additional experiments, 13.  
*Antimony in the atmosphere*, oxidation of hydrochloric acid solutions of, 1.  
*Antimony*, iodide of; its boiling point, 22.  
*Apios tuberosa*, Moench, 346.  
*Apium leptophyllum*, F. Muell., 361.  
*Popei*, Gray, 331.  
*Apodanthera undulata*, Gray, 359.  
*Aquilegia longissima*, Gray, 317.  
*Arabis canescens*, Nutt., 363.  
*Cusickii*, Watson, 363.  
*furcata*, Watson, 362.  
*Mexicana*, Watson, 319.  
*runcinata*, Watson, 319.  
*suffrutescens*, Watson, 362.  
*Arenaria alsinoides*, Willd., 327.  
*Californica*, 367.  
*decussata*, HBK., 327.  
*diffusa*, Ell., 327.  
*lanuginosa*, Rohrb., 327.

- Arenaria macradenia*, Watson, 367.  
     *pusilla*, Watson, 367.  
*Argemone fruticosa*, Thurber, 318.  
     *hispidula*, Gray, 318.  
     *platyceras*, Link & Otto, 318.  
*Argentichloride* in water, on the solubility of, 7.  
*Argento-antimonious tartrate*, 5.  
*Arizona*, new plants of recent collections, mainly in, 199.  
*Arsenic*, iodide of, 59.  
*Arsenic*, on the spectrum of, 35.  
*Arsenic spectrum*, wave-lengths of the principal lines of, 38.  
*Arsenio-molybdates*, 79.  
*Aspicarpa Hartwegiana*, Juss., 333.  
     *hyssopifolia*, Gray, 333.  
     *longipes*, Gray, 334.  
*Aster* and *Solidago* in the older herbaria, studies of, 163.  
*Asters*, North American, in the older herbaria, 164.  
*Aster acuminatus*, 171.  
     *adulterinus*, 174.  
     *æstivus*, 170.  
     *amœnus*, 168.  
     *amplexicaulis*, 168, 172, 173.  
     *amygdalinus*, 168.  
     *annuus*, 166.  
     *argenteus*, 171.  
     *Artemisiæflorus*, 175.  
     *auritus*, 176.  
     *azureus*, 176.  
     *bellidiflorus*, 175.  
     *biflorus*, 172.  
     *bifrons*, 176.  
     *blandus*, 171, 175.  
     *cærulescens*, 176.  
     *canescens*, 175.  
     *Carolinianus*, 169.  
     *ciliatus*, 169, 172.  
     *ciliolatus*, 176.  
     *concinus*, 175.  
     *concolor*, 165.  
     *conyzoides*, 173.  
     *cordifolius*, 165, 172, 174.  
     *cornifolius*, 172.  
     *cyaneus*, 172.  
     *diffusus*, 170, 174.  
     *divaricatus*, 164.  
     *divergens*, 170, 174.  
     *diversifolius*, 172.  
     *dracunculoides*, 173.  
     *Drummondii*, 176.  
     *dumosus*, 164.  
     *elegans*, 173.  
     *eminens*, 175.  
*Aster ericoides*, 165, 170.  
     *floribundus*, 173.  
     *foliolosus*, 169, 174.  
     *fragilis*, 173.  
     *graminifolius*, 175.  
     *grandiflorus*, 167.  
     *hebecladus*, 176.  
     *hirsuticaulis*, 176.  
     *Hirtellus*, 176.  
     *hispidus*, 169.  
     *humilis*, 172.  
     *hyssopifolius*, 165, 173.  
     *infirmus*, 171.  
     *junceus*, 170, 174.  
     *lævigatus*, 169, 173.  
     *lævis*, 166.  
     *lanceolatus*, 173.  
     *laxus*, 175.  
     *ledifolius*, 175.  
     *linariifolius*, 164.  
     *linifolius*, 165.  
     *longifolius*, 169.  
     *macrophyllus*, 168.  
     *Marilandicus*, 171.  
     *microphyllus*, 176.  
     *miser*, 168, 169, 170, 174.  
     *multiceps*, 176.  
     *multiflorus*, 170.  
     *mutabilis*, 166, 170, 174.  
     *nemoralis*, 169, 173.  
     *Novæ-Angliæ*, 165.  
     *Novi-Belgii*, 167, 170.  
     *pallens*, 175.  
     *paludosus*, 169.  
     *paniculatus*, 168, 170, 174.  
     *patentissimus*, 176.  
     *patens*, 169.  
     *patulus*, 169.  
     *pendulus*, 170, 174.  
     *Pennsylvanicus*, 175.  
     *peregrinus*, 176.  
     *phlogifolius*, 172.  
     *pilosus*, 172.  
     *polyphyllus*, 175.  
     *præaltus*, 175.  
     *præcox*, 175.  
     *preanthoides*, 173.  
     *puniceus*, 166.  
     *radula*, 171.  
     *recurvatus*, 173.  
     *reticulatus*, 175.  
     *retroflexus*, 176.  
     *rigidus*, 165.  
     *rubricaulis*, 168.  
     *salicifolius*, 168, 170, 174.  
     *salignus*, 174.  
     *sagittifolius*, 172.

*Aster scoparius*, 176.  
 serotinus, 173.  
 Sibiricus, 164.  
 simplex, 175.  
 solidagineus, 171.  
 solidaginoides, 173.  
 sparsiflorus, 172, 174.  
 spectabilis, 171, 174.  
 spurius, 172.  
 squarrosus, 169.  
 stenophyllus, 176.  
 strictus, 175, 176.  
 subasper, 176.  
 subulatus, 171.  
 sureulosus, 172.  
 tardiflorus, 167, 174.  
 tenuifolius, 164, 174.  
 thyrsiflorus, 172.  
 tortifolius, 171.  
 tradescanti, 166, 174.  
 turbinellus, 176.  
 umbellatus, 169.  
 undulatus, 165.  
 uniflorus, 171.  
 urophyllus, 176.  
 vernus, 166.  
 versicolor, 173.  
 villosus, 172.  
 vimineus, 169, 174.  
*Astragalus Antoninus*, Watson, 343.  
 Arizonicus, Gray, 343.  
 Brazeensis, Buckl., 342.  
 conjunctus, Watson, 371.  
 diphiacus, Watson, 342.  
 giganteus, Watson, 370.  
 grandiflorus, Watson, 370.  
 Greggii, Watson, 343.  
 Hartwegi, Benth., 343.  
 Humboldtii, Gray, 342.  
 leptocarpus, Torr. & Gray, 343.  
 Nuttallianus, DC., 343.  
 orthanthus, Gray, 342.  
 parvus, Hemsl., 343.  
 strigulosus, HBK., 343.  
 terminalis, Watson, 370.  
 triflorus, Gray, 343.  
 vaccarum, Gray, 343.  
 Vaseyi, Watson, 342.  
*Astrophyllum dumosum*, Torr., 335.  
*Atherinichthys notata*, 277.  
*Atriplex fasciculata*, Watson, 377.  
 orbicularis, Watson, 377.  
 Parishii, Watson, 377.  
*Atriplex fasciculata*, Parryi, Watson, 378.  
*Ayenia microphylla*, Gray, 332.

## B.

*Barcena Guanajuatensis*, Dugès, 336.  
*Batrachus tau*, 279.  
*Bauhinia ramosissima*, Benth., 348.  
*Berberis gracilis*, Hartw., 318.  
 ilicina, Hemsl., 318.  
 pallida, Hartw., 318.  
 Schiedeana, Schlecht., 318.  
 trifoliolata, Moric., 318.  
*Bocconia frutescens*, Linn., 319.  
*Boerhaavia pterocarpa*, Watson, 376.  
*Brodiaea filifolia*, Watson, 381.  
 stellaris, Watson, 381.  
 Bromide, antimonious, analysis of, 16.  
*Brongniartia intermedia*, Moric., 342.

## C.

Cadmium, revision of the atomic weight of, 28.  
*Cæsalpinia exostemma*, DC., 347.  
 Mexicana, Gray, 347.  
 Calibrating thermometers, simple method for, 157.  
*Calliandra conferta*, Benth., 351.  
 Coulteri, Watson, 352.  
 eriophylla, Benth., 351.  
*Callirrhoe involuerata*, Gray, 330.  
 pedata, Gray, 330.  
*Calochortus longebarbatus*, Watson, 387.  
*Canavalia villosa*, Benth., 346.  
*Capsella Mexicana*, Hemsl., 322.  
 pubens, Benth. & Hook., 322.  
 Schaffneri, Watson, 322.  
*Cardamine auriculata*, Watson, 319.  
 Gambelii, Watson, 319.  
 Schaffneri, Hook. f., 319.  
*Cardiospermum Halicacabum*, Linn., 337.  
 molle, Linn., 337.  
*Casimiroa edulis*, Llav. & Lex., 335.  
*Cassia bauhinioides*, Gray, 348.  
 Chamæcrista, Linn., 348.  
 Greggii, Gray, 348.  
 leptocarpa, Benth., 348.  
 Lindheimeriana, Scheele, 348.  
 occidentalis, Linn., 348.  
 pumilio, Gray, 348.  
 Roemeriana, Scheele, 348.  
 Vogeliana, Schlecht., 348.  
 Wislizeni, Gray, 348.  
*Castela Nicholsoni*, Hook., 335.

- Caulanthus amplexicaulis*, Watson, 364.  
*glaucus*, Watson, 364.  
*inflatus*, Watson, 364.  
*Ceanothus azureus*, Desf., 337.  
*buxifolius*, 337.  
*cæruleus*, Lag., 337.  
*depressus*, Benth., 337.  
 Greggii, Gray, 337.  
*Cedrela* — ? 335.  
*Cercis occidentalis*, 348.  
*reniformis*, Engelm., 348.  
*Cercocarpus parvifolius*, Nutt., 353.  
*Cordia congestiflora*, Hemsl., 329.  
*glaucæ*, Hemsl., 329.  
*purpurascens*, DC., 329.  
*Cereus cinerascens*, DC., 360.  
*Cevallia sinuata*, Lag., 358.  
*Chlorbromiodacrylic acid*, 99.  
*Chloride*, argentic, on its solubility in water, 7.  
*Chloride*, ferrous, 2.  
*Chlorine* and bromine by electrolysis, an indirect determination of, 91.  
*Chlortribrompropionic acid*, 106.  
*Chorizanthe cuspidata*, Watson, 379.  
*Cladotrix lanuginosa*, 377.  
*oblongifolia*, Watson, 376.  
*Claytonia ambigua*, Watson, 365.  
*cordifolia*, Watson, 365.  
*Clematis Drummondii*, Torr. & Gray, 316.  
*filifera*, Benth., 317.  
*nervata*, Benth., 316.  
 Pitcheri, Torr. & Gray, 317.  
*Cleomella brevipes*, Watson, 365.  
*Cobalt salt*, croceo —, 69.  
*Cocculus Carolinus*, DC., 318.  
*diversifolius*, DC., 318.  
*oblongifolius*, DC., 318.  
*Cochlearia* (?) *Mexicana*, Watson, 320.  
*Colletia* (?) *multiflora*, DC., 336.  
*Cologania angustifolia*, 345.  
*humifusa*, Hemsl., 345.  
*longifolia*, Gray, 345.  
*Martia*, Watson, 345.  
*pulchella*, HBK., 345.  
 Color and pattern of insects, on the, 234.  
*Colubrina glomerata*, Hemsl., 336.  
 Greggii, Watson, 336.  
 Communications, —  
 Alexander Agassiz, 271.  
 Josiah Parsons Cooke, 1.  
 Wolcott Gibbs, 62.  
 Communications, —  
 Asa Gray, 164.  
 H. A. Hagen, 234.  
 Henry B. Hill, 125.  
 N. D. C. Hodges, 268.  
 Silas W. Holman, 157.  
 Oliver W. Huntington, 35.  
 Loring Jackson, } 110.  
 A. E. Menke, }  
 F. E. Kidder, 304.  
 Leonard P. Kinnicutt, 91.  
 Charles F. Mabery, 94.  
 W. H. Melville, 55.  
 Charles Bingham Penrose, 39, 47.  
 Edward C. Pickering, 231.  
 Sereno Watson, 317.  
*Condalia Mexicana*, Schlecht., 336.  
*obovata*, Hook., 336.  
*spathulata*, Gray, 336.  
 Copper and nickel below 0°, thermometric line of, 47.  
*Corallorhiza Arizona*, Watson, 379.  
*Corchorus pilolobus*, Link, 332.  
*Cotoneaster denticulata*, HBK., 354.  
*Cottus Grœnlandicus*, 285.  
*Cotyledon Oregonensis*, Watson, 355.  
*parviflora*, Hemsl., 355.  
 Schaffneri, Watson, 354.  
*viscida*, Watson, 372.  
 — ? 355.  
 Council, Report of the, 399.  
*Cowania Mexicana*, Don, 353.  
*plicata*, Don, 353.  
*Crantzia lineata*, Nutt., 361.  
*Cratægus Crus-galli*, 354.  
*Mexicana*, DC., 354.  
*pubescens*, Steud., 354.  
*Cristatella erosa*, Nutt., 323.  
*Jamesii*, Torr. & Gray, 323.  
*Croceo-cobalt salt*, 69.  
*Crotalaria anagyroides*, 338.  
*eriocarpa*, Benth., 338.  
*Maypurensis*, HBK., 338.  
*pumila*, Ort., 338.  
*Cryolite*, crystalline form of, 55.  
 Crystalline form of cryolite, 55.  
*Ctenolabrus cœruleus*, 290.  
*Cucumis Anguria*, Linn., 359.  
*Cucurbita foetidissima*, HBK., 359.  
*perennis*, Gray, 359.  
*Cuphæa æquipetala*, Cav., 355.  
*lanceolata*, Ait. f., 355.  
*Zimapani*, Roehl, 355.  
*Curcumin*, 110.  
*Curcumin*, esters of, 119.  
 oxidation of, 121.

Curcumin, salts of, 117.  
 dipotassic, 117.  
 monopotassic, 118.  
*Cyclanthera dissecta*, Naud., 359.  
*Naudiniana*, Cogn., 359.  
*Cyclopterus lumpus*, 286.  
*Cyperus serrulatus*, Watson, 382.  
*Cypripedium fasciculatum*, Kell., 380.

## D.

*Dalea alopecuroides*, Willd., 340.  
 aurea, Nutt., 340.  
 Berlandieri, Gray, 340.  
 citriodora, Willd., 330.  
 eriophylla, Watson, 340.  
 frutescens, Gray, 341.  
 Greggii, Gray, 341.  
 lasiathera, Gray, 340.  
 lasiostachys, Benth., 340.  
 leucostoma, Schlecht., 340.  
 Luisana, Watson, 341.  
 mollis, Benth., 341.  
 nana, Torr., 340.  
 nana, 369.  
 pectinata, Benth., 340.  
 pogonathera, Gray, 340.  
 polycephala, Benth., 341.  
 pulchella, 341.  
 radicans, Watson, 341.  
 ramosissima, Benth., 340.  
 rubescens, Watson, 369.  
 scariosa, Watson, 369.  
 trifoliolata, Moric., 340.  
 triphylla, Schlecht., 340.  
 tuberculata, Lag., 340.  
 Wrightii, Gray, 341.  
 Wrightii, 341.  
*Daubentonia longifolia*, DC., 342.  
*Daucus montanus*, Willd., 361.  
*Delphinium azureum*, Michx., 318.  
 leptophyllum, Hemsl., 318.  
*Desmanthus acuminatus*, Benth., 349.  
 brachylobus, Benth., 349.  
 depressus, Humb. & Bonpl., 348, 349.  
 depressus, 349.  
 incurvus, Benth., 349.  
 Jamesii, Torr. & Gray, 349.  
 leptolobus, Torr. & Gray, 349.  
 obtusus, Watson, 349, 371.  
 reticulatus, Benth., 348, 349.

*Desmanthus velutinus*, Scheele, 348, 349.  
 virgatus, Willd., 349.  
*Desmodium gracile*, Mart. & Gal., 345.  
 molliculum, DC., 345.  
 orbiculare, Schlecht., 345.  
 Palmeri, Hemsl., 344.  
 Parryi, Hemsl., 345.  
 psilophyllum, Schlecht., 344.  
 spirale, DC., 344.  
 viridiflorum, Beck, 344.  
 Wislizeni, Engelm., 345.  
 Wrightii, Gray, 344.  
*Deweya vestita*, Watson, 374.  
*Dibromacrylate*, baric, 127, 135, 139.  
 calcic, 129, 135, 139.  
 plumbic, 128.  
 potassic, 129, 136.  
*Dibromacrylic acid*, 94, 125, 138.  
*Dibromacrylic acid* and *tribrompropionic acids*, on the relation between, 133.  
*Dibromiodacrylic* and *chlorbromiodacrylic acids*, 94.  
*Dichloracrylic acid*, on the crystalline form of  $\alpha$ , 131.  
*Dichlorbrompropionic acid*, 144.  
*Dichloridibrompropionate*, baric  $\alpha$ , 146.  
 argentic  $\beta$ , 148.  
 baric  $\beta$ , 149.  
*Dichloridibrompropionic acid*,  $\beta$ , 147.  
*Discopleura laciniata*, Benth. & Hook., 361.  
*Dodonaea viscosa*, Linn., 338.  
*Douglasia dentata*, Watson, 375.  
*Draba chrysantha*, Watson, 364.  
*Drymaria arenarioides*, Willd., 329.  
 cordata, Willd., 327.  
 cordata, 328.  
 crassifolia, Benth., 329.  
 Fendleri, Watson, 328.  
 frankenioides, HBK., 329.  
 glandulosa, Bartl., 328.  
 glandulosa, 328.  
 gracilis, Cham. & Schlecht., 328.  
 nodosa, Engelm., 329.  
 palustris, Cham. & Schlecht., 328.  
 polycarpoides, Gray, 329.  
 ramosissima, Schlecht., 328.  
 suffruticosa, Gray, 328.  
 villosa, Cham. & Schlecht., 328.  
 xerophylla, Gray, 329.

## E.

- Echinocactus bicolor*, Gal., 360.  
*horizonthalonius*, Lam., 360.  
*longehamatus*, Gal., 360.  
*pilosus*, Gal., 360.  
*Echinocystis* (?) *Bigelovii*, Cogn., 374.  
*Echinocystis parviflora*, Watson, 373.  
*Elaterium Bigelovii*, Watson, 374.  
*Elatine Americana*, Nutt., 329.  
Electricity, Thermo-, 39.  
Electrolysis, an indirect determination of chlorine and bromine by, 91.  
*Eriogonum apiculatum*, Watson, 378.  
*delicatum*, Watson, 379.  
*molestum*, Watson, 379.  
*Parishii*, Watson, 379.  
*Eruca sativa*, Lam., 321.  
*Eryngium aquaticum*, *carlinæ*, Delar., 361.  
*Deppeanum*, Cham. & Schlecht., 360.  
*nasturtiifolium*, Juss., 360.  
*serratum*, Cav., 360.  
*Wrightii*, 361.  
*yuccæfolium*, Michx., 360.  
*Erysimum asperum*, DC., 321.  
*Erythrina coralloides*, DC., 346.  
Ether thermometer, examination of, 54.  
*Eucnide bartonioides*, Zucc., 358.  
*floribunda*, Watson, 358.  
*lobata*, Gray, 358.  
*sinuata*, Watson, 358.  
*Eulophus peucedanoides*, HBK., 361.  
*Texanus*, Benth. & Hook., 361.  
Experiments on the fatigue of small spruce-beams, 304.  
*Eysenhardtia amorphoides*, HBK., 339.  
*orthocarpa*, Watson, 339.

## F.

- Fellows, Associate, deceased, —  
Henry Charles Carey, 417.  
Edward Desor, 422.  
John W. Draper, 424.  
Lewis H. Morgan, 429.  
St. Julien Ravenel, 437.  
John Rodgers, 438.  
Barnes Sears, 442.  
Fellows, Associate, List of, 470.

## Fellows elected, —

- Clarence John Blake, 388.  
Francis Blake, 388.  
Lucien Carr, 383.  
Alvan Graham Clark, 383.  
William Otis Crosby, 388.  
John Cummings, 389.  
Thomas Gaffield, 388.  
Charles Rockwell Lanman, 389.  
Frederic Walker Lincoln, 388.  
John Davis Long, 389.  
William Harmon Niles, 389.  
Fellows, Associate, elected, —  
Fordyce Barker, 383.  
John Shaw Billings, 383.  
Luigi Palma di Cesnola, 393.  
Jacob M. Da Costa, 383.  
Henry Draper, 389.  
Manning Ferguson Force, 383.  
Alfred Stillé, 383.  
William Graham Sumner, 383.

## Fellows deceased, —

- John Bacon, 399.  
Richard H. Dana, 399.  
Ralph Waldo Emerson, 403.  
Thomas P. James, 405.  
Henry W. Longfellow, 406.  
John A. Lowell, 408.  
Theophilus Parsons, 411.  
Edward Reynolds, 414.

## Fellows, List of, 467.

## Fellow resigned, —

- William James, 465.

## Fish-eggs, Pelagic, 289.

## Foreign Honorary Member elected :

- William Stubbs, 383.

## Foreign Honorary Members deceased, —

- J. C. Bluntschli, 445.  
Charles Darwin, 449.  
Joseph Decaisne, 458.  
Theodor Schwann, 460.  
Dean Stanley, 461.

## Foreign Honorary Members, List of, 472.

- Fouquieria splendens*, Engelm., 329.  
*Fragaria Mexicana*, Schlecht., 353.  
*Frankenia grandifolia*, Cham. & Schlecht., 326.  
*Fumaria parviflora*, Lam., 319.

## G.

- Gadus morrhua*, 296.  
*Galactia brachystachys*, Benth., 346.  
*marginalis*, Benth., 346.

- Galphimia angustifolia*, Benth., 333.  
*vinifolia*, Gray, 333.  
*Garrya laurifolia*, Hartw., 361.  
*ovata*, Benth., 361.  
*Gasterosteus aculeatus*, 288.  
*Gaudichaudia filipendula*, Juss., 333.  
*Gaura coccinea*, Nutt., 358.  
*Drummondii*, Torr. & Gray, 358.  
*parviflora*, Dougl., 357.  
*Geranium Carolinianum*, Linn., 334.  
*Carolinianum*, 334.  
*crenatum*, Watson, 334.  
*Hernandezii*, DC., 334.  
*Hernandezii*, 334.  
*Mexicanum*, HBK., 334.  
*Schiedeanum*, Cham. & Schlecht., 334.  
*Glinus Cambessidesii*, Fenzl, 360.  
*Gossypium Barbadense*, Linn., 332.  
*Greggia camporum*, Gray, 321.
- H.
- Helianthemum arenicola*, Chapm., 323.  
*argenteum*, Hemsl., 323.  
*Coulteri*, Watson, 323.  
*glomeratum*, Lag., 323.  
*patens*, Hemsl., 323.  
*Helietta parvifolia*, Benth., 335.  
*Hermannia pauciflora*, Watson, 368.  
*Texana*, Gray, 332, 369.  
*Hibiscus cardiophyllus*, Gray, 332.  
*Coulteri*, Harv., 332.  
*denudatus*, Benth., 332.  
*Hiræa Greggii*, Watson, 333.  
*lilacina*, Watson, 333.  
*Hoffmanseggia gracilis*, Watson, 347.  
*stricta*, Benth., 347.  
*Hosackia angustifolia*, Don, 339.  
*puberula*, Benth., 339.  
*Hunnemannia fumariæfolia*, Sweet, 319.  
 Hydrochloric acid solutions of anti-  
 mony in the atmosphere, Oxi-  
 dation of, 1.  
*Hydrocotyle interrupta*, 360.  
*prolifera*, Kell., 360.  
*Hypericum denticulatum*, HBK., 330.  
*fastigiatum*, 330.  
*mutilum*, Linn., 329.  
*pauciflorum*, HBK., 330.  
*perforatum*, Linn., 329.  
*philonotis*, Schlecht., 329.  
*Schaffneri*, Watson, 330.
- I.
- Ilex decidua*, Walt., 335.  
*Indigofera leptosepala*, Nutt., 342.  
*Lindheimeriana*, Scheele, 342.  
*subulata*, 342.  
 Insects, on the color and pattern of, 234.  
   body colors in, 246.  
   change of color in, 249.  
   color of, 236.  
   color, its nature and formation in, 259.  
   colors, Bezold's view upon the nature of, in, 245.  
   dermal colors of, 242, 247.  
   fluorescent colors of, 247.  
   hypodermal colors of, 243, 247.  
   natural colors of, 242.  
   optical colors of, 237.  
   pattern of, 250.  
   transparent colors of, 245.  
   sexual selection of, 248.  
   surface colors of, 246.  
 Iodide of antimony, its boiling-point, 22.  
 Iodide of arsenic, 59.  
*Ionidium calceolarium*, Ging., 324.  
*lineare*, Torr., 324.  
*polygalæfolium*, Vent., 324.  
*verbenaceum*, HBK., 324.  
*Iris tenuis*, Watson, 380.  
*Ivesia Utahensis*, Watson, 371.
- J.
- Janusia gracilis*, Gray, 334.  
*Jussiaea repens*, Linn., 356.  
*suffruticosa*, Linn., 356.
- K.
- Karwinskia Humboldtiana*, Zucc., 336.  
*Kochia Californica*, Watson, 378.  
*Kœberlinia spinosa*, Zucc., 335.  
*Krameria canescens*, Gray, 326.  
*cinerea*, Schauer, 326.  
*cytisoides*, Cav., 326.  
*lanceolata*, Torr., 326.  
*parvifolia*, 326.  
*pauciflora*, DC., 326.  
*ramosissima*, Watson, 326.  
*secundiflora*, DC., 326.



## L.

- Labrax lineatus*, 274.  
*Larrea Mexicana*, Moric., 334.  
*Lathyrus Cusickii*, Watson, 371.  
     *parvifolius*, Watson, 345.  
     *venosus*, 345.  
*Lechea major*, Michx., 323.  
     *Skinneri*, Benth., 323.  
*Lepidium intermedium*, Gray, 322.  
     *lasiocarpum*, Nutt., 322.  
     *Menziesii*, DC., 323.  
     *Menziesii*, 322.  
     *rudérale*, 323.  
     *Virginicum*, 322.  
     *Wrightii*, Gray, 322.  
*Lepigonum gracile*, Watson, 367.  
     *Mexicanum*, Hemsl. 327.  
     *rubrum*, Fries, 327.  
*Lespedeza repens*, Bart., 345.  
*Leucena glauca*, Benth., 350.  
*Ludleya mespiloides*, HBK., 353.  
*Linum Cruciatum*, Planch., 332.  
     *Greggii*, Engelm., 332.  
     *lecheoides*, Watson, 332.  
     *Mexicanum*, Kunth, 333.  
     *rigidum*, Pursh, 332.  
     *rupestre*, Engelm., 332.  
     *scabellum*, Planch., 333.  
     *Schiedeanum*, Cham. & Schlecht., 333.  
*Llavea integrifolia*, Hemsl., 336.  
*Lonicera ciliata*, 374.  
     *Utahensis*, Watson, 374.  
*Lopezia pumila*, Bonpl., 357.  
     *trichota*, Schlecht., 357.  
*Lophius piscatorius*, 280.  
*Ludwigia palustris*, Linn., 356.  
*Lupinus bilineatus*, Benth., 338.  
     *Ehrenbergii*, Schlecht., 338.  
     *Hartwegi*, Lindl., 338.  
     *Havardi*, Watson, 369.  
     *Leonensis*, Watson, 338.  
     *ornatus*, 369.  
     *Plattensis*, Watson, 369.  
*Lythrum alatum*, Linn., 355.  
     *gracile*, Benth., 355.  
     *Hyssopifolia*, Linn., 355.  
     *Kennedianum*, HBK., 355.

## M.

- Mahonia ilicina*, Schlecht., 318.  
     *trifolia*, Cham. & Schlecht., 318.  
*Malpighia glabra*, Linn., 333.  
*Malva Americana*, 368.

- Malvastrum densiflorum*, Watson, 368.  
     *Rugelii*, Watson, 367.  
     *tricuspidatum*, Gray, 330.  
*Malvaviscus Drummondii*, Torr. & Gray, 332.  
*Mamillaria conoidea*, DC., 360.  
     *micromeris*, Engelm., 360.  
     *radians*, DC., 360.  
*Martia*, Zucc., 346.  
*Maximowiczia Lindheimeri*, Cogn., 359.  
     *tripartita*, Cogn., 359.  
*Medicago minima*, Lam., 339.  
*Melilotus parviflora*, Desf., 339. \*  
*Melochia pyramidata*, Linn., 332.  
     *serrata*, 368.  
*Mentzelia aspera*, Linn., 359.  
     *hispida*, Willd., 359.  
     *multiflora*, Nutt., 359.  
     *strigosa*, HBK., 359.  
     *Wrightii*, Gray, 359.  
*Microrhamnus ericoides*, Gray, 337.  
*Mimosa acanthocarpa*, Benth., 350.  
     *biuncifera*, Benth., 350.  
     *flexuosa*, Benth., 350.  
     *Lindheimeri*, Gray, 350.  
     *malacophylla*, Gray, 350.  
     *monanistrata*, Benth., 350.  
     *strigillosa*, Torr. & Gray, 350.  
     *zygophylla*, Benth., 350.  
     —, 350.  
*Mirabilis tenuiloba*, Watson, 375.  
*Mollugo Cerviana*, Ser., 360.  
     *verticillata*, Linn., 360.  
*Molybdate*, Ammonic phospho-, 68.  
*Molybdate of ammonium*, Phospho-, 77.  
*Molybdates*, Arsenio-, 79.  
*Molybdates*, Phospho-, 62.  
*Molybdic and phosphoric oxides*, percentages of, 63.  
*Mortonia effusa*, Turcz., 336.  
     *Greggii*, Gray, 336.  
     *Palmeri*, Hemsl., 336.  
     *scabrella*, Gray, 336.  
*Motella argentea*, 294.  
*Myosurus aristatus*, Benth., 362.  
     *cupulatus*, Watson, 362.  
     *minimus*, Linn., 362.  
     *sessilis*, Watson, 362.

## N.

- Nasturtium tanacetifolium*, Hook. & Arn., 319.  
*Negundo aceroides*, Moench, 338.



- Neptunia pubescens*, Benth., 348.  
*Nesaea longipes*, Gray, 356.  
*salicifolia*, HBK., 356.  
 Nickel, copper, and their thermo-  
 metric line below 0°, 47.  
*Nissolia platycalyx*, Watson, 344.  
*Wisizeni*, Gray, 344.  
*Novitiæ Arizonicæ*, etc.  
*Acamptopappus Shockleyi*, 208.  
*Æsculus Parryi*, 200.  
*Actinella Vaseyi*, 219.  
*Adenocaulon*, 214.  
*Ambrosia pumila*, 217.  
*Androsace Arizonica*, 221.  
*Antennaria flagellaris*, 212.  
*stenophylla*, 213.  
*Artemisia Parishii*, 220.  
*Aster imbricatus*, 210.  
*Palmeri*, 209.  
*stenomerus*, 209.  
*Baccharis sarothroides*, 211.  
*Barroetia Pavonii*, 206.  
*subuligera*, 205.  
*Bigelovia albida*, 209.  
*intricata*, 208.  
*Braya Oregonensis*, 199.  
*Breweria minima*, 228.  
*Brickellia cylindracea*, 207.  
*frutescens*, 207.  
*grandiflora*, 207.  
*Lemmoni*, 206.  
*odontophylla*, 206.  
*Pringlei*, 206.  
*Bursaria microphylla*, 230.  
*Cnicus Rothrockii*, 220.  
*Cordylanthus Nevinii*, 229.  
*Coursetia microphylla*, 201.  
*Cracca Edwardsii*, 201.  
*glabella*, 201.  
*sericea*, 201.  
*Crepis pleurocarpa*, 221.  
*Crotalaria Pringlei*, 200.  
*Dalea Lemmoni*, 200.  
*Ordia*, 200.  
*Pringlei*, 201.  
*Dugesia Mexicana*, 216.  
*Erigeron dryophyllus*, 210.  
*Pringlei*, 210.  
*Muirii*, 210.  
*Eriodictyon angustifolium*, 224.  
*Eritrichium intermedium*, 225.  
*racemosum*, 226.  
*Eupatorium Coahuilense*, 205.  
*Fendleri*, 205.  
*pauperculum*, 205.  
*Phanerostylis*, 205.  
*Evolvulus lætus*, 228.  
*Novitiæ, Arizonicæ, Galium Roth-*  
*rockii*, 203.  
*Gilia prostrata*, 223.  
*Githopsis diffusa*, 221.  
*Gnaphalium Wrightii*, 214.  
*Gomphocarpus hypoleucus*, 222.  
*Grindelia Arizonica*, 208.  
*costata*, 208.  
*subdecurrens*, 208.  
*Gymnolomia triloba*, 217.  
*Hecastocleis Shockleyi*, 221.  
*Houstonia fasciculata*, 203.  
*Palmeri*, 202.  
*Wrightii*, 202.  
*Jacquemontia Pringlei*, 227.  
*Kuhnia Schaffneri*, 207.  
*Lagophylla glandulosa*, 219.  
*Leptosyne Arizonica*, 218.  
*Lessingia glandulifera*, 207.  
*Lithospermum glabrum*, 227.  
*Lobelia Gattingeri*, 221.  
*Madia Yosemiteana*, 219.  
*Micropus amphibolus*, 214.  
*Monardella tenuiflora*, 230.  
*Orthocarpus Parishii*, 229.  
*Parthenium confertum*, 216.  
*Pentstemon brevilabris*, 229.  
*Parishii*, 228.  
*Phacelia platyloba*, 223.  
*Pringlei*, 223.  
*Plummera floribunda*, 215.  
*Pluchea borealis*, 212.  
*Ribes viburnifolium*, 202.  
*Rubus lasiococcus*, 201.  
*Rudbeckia Mohrii*, 217.  
*montana*, 217.  
*Senecio Lemmoni*, 220.  
*Stevia Lemmoni*, 204.  
*Plummeræ*, 204.  
*Synedrella vialis*, 217.  
*Vernonia Greggii*, 204.  
*Ervendbergii*, 203.  
*Palmeri*, 204.  
*Schaffneri*, 204.  
*Viguiera lanata*, 218.  
*Nymphæa ampla*, DC., 318.  
 O.  
*Enothera Berlandieri*, Walp., 356.  
*brachycarpa*, Gray, 357.  
*dentata*, 373.  
*dissecta*, Gray, 357.  
*Drummondii*, Hook., 356.  
*Hartwegi*, Benth., 357.  
*heterochroma*, Watson, 373.

- Enothera hirsuta*, Walp., 356.  
*macroscelus*, Gray, 356.  
*refracta*, Watson, 373.  
*rosea*, Ait., 357.  
*sinuata*, Michx., 356.  
*speciosa*, Nutt., 356.  
*strigulosa*, 373.  
*tetraptera*, Cav., 356.  
*Wrightii*, Gray, 357.  
*Oligomeris glaucescens*, Camb., 323.  
*Opuntia imbricata*, DC., 360.  
     *Kleiniae*, DC., 360.  
*Orthoiodbenzylbromide* and its derivatives, preliminary notice of, 103.  
*Osseous* fishes, on the young stages of some, 271.  
*Oxalis corniculata*, Linn., 335.  
     *decaphylla*, HBK., 335.  
     *dichondraefolia*, Gray, 335.  
     *Wrightii*, Gray, 335.  
*Oxybaphus linearifolius*, Watson, 375.
- P.
- Pachystima Myrsinites*, Raf., 336.  
*Parkinsonia aculeata*, Linn., 348.  
     *Texana*, Watson, 348.  
*Passiflora bryonioides*, HBK., 359.  
     *fetida*, Linn., 359.  
     *tenuiloba*, Engelm., 359.  
*Pattern* of insects, on the color and, 234.  
*Paullinia subulata*, Gray, 337.  
*Pavonia lasiopetala*, Scheele, 332.  
     *Wrightii*, Gray, 332.  
*Pedicularis bracteosa*, Benth., 375.  
     *Canadensis*, Linn., 375.  
     *Furbishiae*, Watson, 375.  
*Peganum Mexicanum*, Gray, 335.  
*Pelagic* fish eggs, 289.  
*Peltier* and *Thomson*, effects of thermoelectricity, 39.  
*Petalonyx crenatus*, Gray, 358.  
*Petalostemon obovatus*, Torr. & Gray, 341.  
*Peteria scoparia*, Gray, 342.  
*Peucedanum Mexicanum*, Watson, 361.  
*Phaseolus atropurpureus*, DC., 346.  
     *diversifolius*, Pers., 346.  
     *filiformis*, Benth., 346.  
     *heterophyllus*, Willd., 346.  
     *multiflorus*, Willd., 347.  
     *polymorphus*, Watson, 346.  
*Phaseolus retusus*, Benth., 346.  
     *scabrellus*, Benth., 346.  
     *Wrightii*, Gray, 346.  
     —?, 347.  
*Philadelphus serpyllifolius*, Gray, 354.  
*Phospho-molybdate*, ammonic, 68.  
*Phospho-molybdate* of ammonium, 77.  
*Phospho-molybdates*, 62.  
*Phospho-molybdic acid*. Twenty-four atom series, 65.  
*Phosphoric* and *molybdic* oxides, percentages of, 63.  
*Physaria didymocarpa*, Nutt., 363.  
     *Geyeri*, Gray, 363.  
     *Newberryi*, Gray, 363.  
     *Oregona*, Watson, 363.  
*Pistacia Mexicana*, HBK., 338.  
*Pithecolobium brevifolium*, Benth., 352.  
     *elachistophyllum*, Gray, 352.  
     *Palmeri*, Hemsl., 352.  
     *Schaffneri*, Watson, 352.  
*Polanisia trachysperma*, Torr. & Gray, 323.  
     *uniglandulosa*, DC., 323.  
*Polygala alba*, Nutt., 325.  
     *Greggii*, Watson, 325.  
     *hemipterocarpa*, Gray, 326.  
     *Lindheimeri*, Gray, 324.  
     *macradenia*, Gray, 325.  
     *Mexicana*, DC., 325.  
     *obscura*, Benth., 325.  
     *ovalifolia*, DC., 324.  
     *Palmeri*, Watson, 325.  
     *puberula*, Gray, 324.  
     *pubescens*, 324.  
     *scoparia*, HBK., 325.  
     *semialata*, Watson, 326.  
     *viridis*, Watson, 326.  
*Polygonum intermedium*, Nutt., 378.  
*Porlieria angustifolia*, Gray, 334.  
*Portulaca pilosa*, Linn., 329.  
*Potassium salt*, acid, 70, 73.  
*Potentilla heptaphylla*, Mill., 353.  
     *Norvegica*, Linn., 353.  
*Propionic acids*, on certain tetrasubstituted, 140.  
*Prosopis cinerascens*, Gray, 348.  
     *juliflora*, DC., 348.  
*Prunus Capuli*, Cav., 352.  
     *glandulosa*, Torr. & Gray, 352.  
     *Mexicana*, Watson, 353.  
*Psoralea pentaphylla*, Linn., 339.  
     *rhombifolia*, Torr. & Gray, 339.

*Ptelea angustifolia*, Benth., 335.  
*parvifolia*, Gray, 335.  
*trifoliata*, Linn., 335.

## R.

*Ranunculus delphinifolius*, HBK., 317.  
*geoides*, HBK., 317.  
*Hookeri*, Schlecht., 317.  
*stolonifer*, Hemsl., 317.  
*Rhamnus Caroliniana*, Walt., 336.  
*Rhus Copallina*, Linn., 338.  
*microphylla*, Engelm., 338.  
*pachyrrhachis*, Hemsl., 338.  
*virens*, Lindl., 338.  
*Rhynchosia macrocarpa*, Benth., 347.  
*minima*, DC., 347.  
*phaseoloides*, DC., 347.  
*Senna*, 347.  
*Texana*, Torr. & Gray, 347.  
*Rosa Mexicana*, Watson, 354.  
*Rubus humistratus*, Steud., 353.  
*trivialis*, Michx., 353.

## S.

Salt, acid potassium, 70, 73.  
Salt, ammonium, 71, 76, 78.  
Salt, croceo-cobalt, 69.  
*Sapindus marginatus*, Willd., 337.  
*Sarratia Berlandieri*, 376.  
*Saxifraga eriophora*, Watson, 372.  
*Schaefferia cuneifolia*, Gray, 335.  
*Schrankia aculeata*, Willd., 350.  
*subinermis*, Watson, 350.  
*Sechiopsis triquetra*, Naud., 360.  
*Sedum divaricatum*, Watson, 372.  
*divergens*, Watson, 372.  
*Douglasii*, Hook., 372.  
*ebracteatum*, DC., 355.  
*fuscum*, Hemsl., 355.  
*Liebmannianum*, Hemsl., 355.  
*Palmeri*, Watson, 355.  
*parvum*, Hemsl., 355.  
*Sericoides Greggii*, Gray, 334.  
*Serjania brachycarpa*, Gray, 337.  
*incisa*, Torr., 337.  
*inflata*, Watson, 337.  
*racemosa*, Schum., 337.  
*Sesbania Cavanillesii*, Watson, 342.  
*longifolia*, DC., 342.  
*macrocarpa*, Muhl., 342.

*Sicydium Lindheimeri*, Gray, 359.  
*Sicyos angulatus*, 359.  
*Deppei*, Don, 359.  
*Sida diffusa*, HBK., 330.  
*fasciculata*, Torr. & Gray, 330.  
*filiformis*, Moric., 330.  
*filipes*, Gray, 331.  
*hederacea*, Gray, 330.  
*Lindheimeri*, Gray, 331.  
*physocalyx*, Gray, 331.  
*tragiæfolia*, Gray, 331.  
*Silene Greggii*, Gray, 326.  
*laciniata*, Cav., 326.  
*Parishii*, Watson, 366.  
*platyota*, Watson, 366.  
*plicata*, Watson, 366.  
Silver emetic, 5.  
*Sisymbrium auriculatum*, Gray, 321.  
*canescens*, Nutt., 320.  
*Coulteri*, Hemsl., 320.  
*Palmeri*, Hemsl., 320.  
*streptocarpum*, 320.  
Solidago and Aster, studies of, in the older herbaria, 163.  
*Solidago altissima*, 177, 180, 184.  
*ambigua*, 183, 185.  
*arguta*, 180, 185.  
*aspera*, 180, 184.  
*asperata*, 187.  
*asperula*, 188.  
*bicolor*, 178, 182, 185.  
*casia*, 178, 183, 185.  
*Canadensis*, 177, 179, 184.  
*carinata*, 189.  
*ciliaris*, 184.  
*Clelie*, 188.  
*conferta*, 186.  
*confertiflora*, 189.  
*corymbosa*, 187.  
*decemflora*, 188.  
*elata*, 187.  
*elliptica*, 181, 185.  
*erecta*, 187.  
*flabelliformis*, 188.  
*flexicaulis*, 178, 185.  
*fragrans*, 186.  
*fusca*, 188.  
*gigantea*, 180, 184.  
*glabra*, 186, 188.  
*glomerata*, 183.  
*gracilis*, 186.  
*grandiflora*, 188.  
*hirta*, 186.  
*hispida*, 185.  
*humilis*, 187, 188.  
*integrifolia*, 188.

*Solidago juncea*, 181, 185.  
*laevigata*, 181, 185.  
*lanceolata*, 178, 181, 185.  
*lateriflora*, 178, 180, 184.  
*latifolia*, 178.  
*lepida*, 189.  
*linoides*, 182.  
*lithospermifolia*, 186.  
*livida*, 186.  
*macrophylla*, 187.  
*Mexicana*, 178, 181, 185.  
*multiflora*, 187, 188.  
*multiradiata*, 183, 186.  
*memoralis*, 180, 184.  
*Noveboracensis*, 179.  
*nutans*, 188.  
*odora*, 181, 185.  
*patula*, 185.  
*pauciflosculosa*, 183.  
*petiolaris*, 182, 185.  
*plantaginea*, 188.  
*procera*, 179, 184.  
*pyramidata*, 187.  
*recurvata*, 186.  
*reflexa*, 180, 184.  
*retrorsa*, 183.  
*rigida*, 179, 182, 186.  
*rotundifolia*, 189.  
*rugosa*, 184.  
*sarothræ*, 187.  
*scabra*, 184.  
*scabrida*, 188.  
*Schraderi*, 189.  
*sempervirens*, 177, 181, 185.  
*serotina*, 179, 184.  
*spathulata*, 189.  
*stricta*, 182, 185.  
*ulmifolia*, 185.  
*villosa*, 187.  
*viminea*, 182, 185.  
*virgata*, 183.  
*virgaurea*, 179.  
 (§1) *Virgaurea*, —  
*amplexicaulis*, 194.  
*arguta*, 195.  
*bicolor*, 190.  
*Bigelovii*, 190.  
*Boottii*, 195.  
*Buckleyi*, 190.  
*cæsia*, 189.  
*Californica*, 197.  
*Canadensis*, 196.  
*Chapmani*, 193.  
*confertiflora*, 191.  
*confinis*, 191.  
*corymbosa*, 198.  
*Curtisii*, 190.

*Solidago discoidea*, 189.  
*Drummondii*, 198.  
*Elliotii*, 194.  
*elliptica*, 194.  
*elongata*, 196.  
*flavovirens*, 192.  
*glomerata*, 191.  
*gracillima*, 192.  
*Guirardonis*, 193.  
*Houghtoni*, 198.  
*humilis*, 191.  
*juncea*, 195.  
*lancifolia*, 190.  
*latifolia*, 190.  
*Leavenworthii*, 196.  
*lepida*, 196.  
*Lindheimeriana*, 190.  
*linoides*, 184.  
*macrophylla*, 191.  
*Marshalli*, 195.  
*Missouriensis*, 195.  
*monticola*, 190.  
*multiradiata*, 191.  
*nana*, 197.  
*neglecta*, 195.  
*memoralis*, 197.  
*nitida*, 198.  
*odora*, 193.  
*Ohioensis*, 198.  
*patula*, 193.  
*petiolaris*, 189.  
*pilosa*, 193.  
*puberula*, 192.  
*pumila*, 198.  
*radula*, 197.  
*Riddellii*, 198.  
*rigida*, 198.  
*rugosa*, 194.  
*rupestris*, 196.  
*sempervirens*, 192.  
*serotina*, 196.  
*Shortii*, 195.  
*sparsiflora*, 197.  
*spathulata*, 191.  
*speciosa*, 193.  
*spectabilis*, 193.  
*spithamæa*, 191.  
*squarrosa*, 189.  
*stricta*, 192.  
*Terræ-Novæ*, 195.  
*tortifolia*, 193.  
*uliginosa*, 193.  
*ulmifolia*, 194.  
*verna*, 194.  
*virgaurea*, 191.

- (§2) *Chrysoma*, —  
*Solidago gonoclada*, 199.  
*paniculata*, 199.  
*pauciflosculosa*, 198.  
*scabrida*, 199.  
*simplex*, 199.  
*spathulata*, 199.  
*velutina*, 199.
- (§3) *Euthamia*, —  
*lanceolata*, 198.  
*leptocephala*, 198.  
*occidentalis*, 198.  
*tenuifolia*, 198.
- Sophora secundiflora*, Lag., 347.  
*sericea*, Nutt., 347.
- Spergularia*, Presl, 327.  
*Mexicana*, Hemsl., 327.  
*neglecta*, 327.
- Sphaeralcea angustifolia*, St. Hil., 331.  
*hastulata*, Gray, 331.  
*stellata*, Torr. & Gray, 332.
- Spiraea discolor*, Pursh, 353.
- Spruce-beams, experiments on the fatigue of small, 304.
- Stellaria cuspidata*, Willd., 327.  
*prostrata*, Baldw., 327.
- Stenosiphon virgatus*, Spach, 358.
- Stipularia*, Haw., 327.
- Streptanthus diversifolius*, Watson, 363.  
*micranthus*, Gray, 321.
- Stromateus triacanthus*, 276.
- Stylosanthes mucronata*, Willd., 344.
- Synthlipsis Berlandieri*, Gray, 321, 322.  
*Greggii*, Gray, 322.  
*heterochroma*, Watson, 321.
- Thelypodium auriculatum*, Watson, 321.  
*linearifolium*, Watson, 321.  
*longifolium*, Watson, 321.  
*micranthum*, Watson, 321.
- Thermoelectric line of copper and nickel below 0°, 47.
- Thermoelectricity, 39.
- Thermometer, a new form of air-, 22.  
differential air-, 26.  
ether, examination of, 54.
- Thermometers, simple method for calibrating, 157.
- Thlaspi Californicum*, Watson, 365.
- Tilia Mexicana*, Benth., 332.
- Tillæa angustifolia*, Nutt., 354.
- Tourmaline, white, 57.
- Tradescantia Floridana*, Watson, 381.  
*gracilis*, HBK., 382.
- Tribromacrylic acid, crystalline form of, 154.
- Tribrompropionate, argentic, 137.
- Tribrompropionic acid, 137.  
its relation to dibromacrylic acid, 133.
- Tribulus maximus*, Linn., 334.
- Trifolium amabile*, Hook., 339.  
*involutatum*, Willd., 339.  
*reflexum*, 339.
- Schiedeanum*, Watson, 339.
- Turmeric, on certain substances obtained from, 110.
- Turnera aphrodisiaca*, Ward, 359.

## U.

*Ungnadia speciosa*, Endl., 337.

## V.

- Talinopsis frutescens*, Gray, 329.
- Talinum aurantiacum*, Engelm., 329.
- Telephoning over long distances or through cables, 268.
- Temnodon saltator*, 275.
- Tephrosia Lindheimeri*, Gray, 342.  
*tenella*, Gray, 342.
- Tetrabrompropionate, baric, 142.  
calcic, 143.
- Tetrabrompropionic acid, 140.
- Thalictrum strigillosum*, Hemsl., 317.
- Thamnosma Texanum*, Torr., 335.
- Vauquelinia corymbosa*, Corr., 353.
- Vesicaria argyrea*, Gray, 319.  
*Fendleri*, Gray, 320.  
*purpurea*, Gray, 319.  
*recurvata*, Engelm., 320.  
*Schaffneri*, Watson, 320.  
*stenophylla*, Gray, 320.
- Vicia Americana*, Linn., 345.  
*pulchella*, HBK., 345.
- Viola Barroetana*, Schaffn., 324.  
*cucullata*, Ait., 324.  
*flagelliformis*, Hemsl., 323.  
*Hookeriana*, HBK., 324.

## T.

- Viola latistipula*, Hemsl., 324.  
    *pubescens*, 324.  
*Vitis æstivalis*, Michx., 337.  
    *cordifolia*, Michx., 337.  
    *incisa*, Nutt., 337.

## W.

- Wedge photometer, the, 231.  
White tourmaline, 57.

## X.

- Xanthoxylum Clava-Herculis*, Linn.,  
    335.  
    *macrophyllum*, Nutt., 335.  
    *Pterota*, HBK., 335.  
*Xylopleurum*, Spach, 356.

## Z.

- Zizyphus lycioides*, Gray, 336.  
    *obtusifolius*, Gray, 336.  
*Zornia diphylla*, Pers., 344.  
    *tetraphylla*, Michx., 344.

